AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended): A Fibre Channel Arbitrated Loop interconnect system comprising:

a plurality of ports including a first port, and a second port, the first and second ports including port logic to monitor certain arbitrated loop primitives,

a crossbar switch coupled to the first and second ports, and

a route determination apparatus including a centralized routing table consisting of ALPA addresses and their associated ports, the centralized routing table directly coupled to each port and the crossbar switch through separate signaling paths, the centralized routing table initialized with a device discovery process during loop initialization,

wherein the crossbar switch creates direct paths between the first and second ports based on arbitrated loop primitives, the direct paths excluding all other ports.

Claim 2 (previously presented): The interconnect system of claim 1 wherein the arbitrated loop primitives that cause the crossbar switch to create paths between ports includes one or more of the following: ARB, OPN and CLS.

Claim 3 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop devices comprising:

a first Arbitrated Loop containing ~~one or more~~ a first group of Fibre Channel Arbitrated Loop ~~arbitrated loop~~ devices,

a second Arbitrated Loop containing a second group of Fibre Channel Arbitrated Loop devices, and

a Fibre Channel Arbitrated Loop ~~arbitrated loop~~ interconnect system, the interconnect system including:

a plurality of ports including a first port containing port logic coupled to the first Arbitrated Loop, and a second port containing port logic coupled to the second Arbitrated Loop,

route determination apparatus including a centralized routing table directly coupled to the first and second ports for selecting a route between the ports, the centralized routing table selecting routes based on received Fibre Channel Arbitrated Loop primitives from the ports and containing Arbitrated Loop Physical Address (ALPA) addresses and their associated ports, the centralized routing table initialized with a device discovery process during loop initialization, and

connectivity apparatus directly coupled to the first and second ports and to the route determination apparatus for switching frames between the ports under control of the route determination apparatus,

wherein the connectivity apparatus is a crossbar switch that creates direct paths between the first and second ports based on the arbitrated loop primitives, the direct paths excluding all other ports, and

wherein Fibre Channel frames are transferred between a device on the first Arbitrated Loop and another device the second Arbitrated Loop ~~Device~~.

Claim 4 (currently amended): The interconnect system of claim 3 ~~whereby~~ wherein the arbitrated loop primitives that cause the crossbar switch to create direct paths between the first and second ports includes one or more of the following: ARB, OPN and CLS.

Claim 5 (currently amended): The interconnect system of claim [[3]]4 including a R_RDY counter to count R_RDY's before the OPN ~~response~~ primitive is received by ~~the~~ an originating Fibre Channel Arbitrated Loop ~~Device~~ device that is connected to the interconnect system.

Claim 6 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop devices comprising:

a first Fibre Channel Arbitrated ~~loop~~ Loop switch, and

a second Fibre Channel Arbitrated ~~loop~~ Loop switch,

the first and second Fibre Channel Arbitrated Loop ~~Switches~~ switches each including

port logic,

connectivity apparatus and

route determination logic, the route determination logic including a centralized routing table directly coupled to the port logic and the connectivity apparatus, the route determination logic ~~creating~~ selecting routes based on the centralized routing table containing Arbitrated Loop Physical Address (ALPA) addresses and their associated ports, and received ~~receipt of certain~~ arbitrated Loop primitives, and the centralized routing table initialized with a device discovery process during loop initialization,

wherein the connectivity apparatus creates direct paths between the first and second switches based on the received arbitrated loop primitives, the direct paths excluding all other ports,

wherein the first and second loop switches are interconnected by two or more Fibre Channel Arbitrated Loop links and transfer frames on both switches ~~ports~~.

Claim 7 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices comprising:

a plurality of Fibre Channel Arbitrated Loop ports each including port logic,

a route determination apparatus comprising a centralized routing table, the centralized routing table initialized with a device discovery process during loop initialization, and

a crossbar switch adapted to connect the Fibre Channel Arbitrated Loop ports based on ~~the receipt of certain~~ received Fibre Channel Arbitrated Loop primitives by creating direct paths between the ports, the direct paths excluding all other ports,

wherein a Loop Initialization Primitive (LIP) received on ~~the~~ a first port is selectively propagated to one or more of the ports, and

wherein the centralized routing table is directly coupled to the plurality of ports and the crossbar switch.

Claim 8 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices comprising;

a plurality of Fibre Channel Arbitrated Loop ports each including port logic,

a route determination apparatus comprising a centralized routing table, the centralized routing table initialized with a device discovery process during loop initialization,

a connectivity apparatus creating direct paths between any two ports based upon received arbitrated loop primitives, the direct paths excluding all other ports, and

logic implementing predefined loop control criteria to enforce fairness,

wherein the centralized routing table is directly coupled to the plurality of ports and the connectivity apparatus.

Claim 9 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim 8, wherein the ~~fairness~~ logic to enforce fairness serves to limit the number of times a connected device opens another device.

Claim 10 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim [[9]]8, wherein the ~~fairness~~ logic to enforce fairness serves to limit the number of times a connected device sequentially opens another device.

Claim 11 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim 8, further including a counter to count the number of opens.

Claim 12 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim 11, wherein the counter counts sequential opens.

Claim 13 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim 8, wherein the logic proactively closes a device.

Claim 14 (currently amended): A system for interconnecting Fibre Channel Arbitrated Loop ~~Devices~~ devices of claim 8, wherein the ports are assigned different access priorities.